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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Takeshi Kurimoto

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06/01/2006

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EXAMINER

BROWN, DREW J

ART UNIT

PAPER NUMBER

3616

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GROUP 3600

**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/690,748
Filing Date: October 23, 2003
Appellant(s): KURIMOTO ET AL.

Manabu Kanesake
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 4/21/06 appealing from the Office action mailed 1/13/06.

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(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

No amendment after final has been filed.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

JP 2000-85515	Makoto	3-2000
6349964	Acker et al.	2-2002
6,231,069	Yokoyama	5-2001

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Makoto (JP 2000-085515).

Makoto, according to Figure 1, discloses an airbag having an occupant side surface (left end of airbag in Fig. 1) facing the occupant and an opposite side surface (right end of airbag in Fig. 1) opposite to the occupant side surface when the airbag is inflated, where the airbag has an interior partitioned into an upper chamber 12 and a lower chamber 11. A gas generator 20 is disposed in the airbag for generating gas to inflate the airbag, and a gas distributor is disposed in the airbag and partly surrounds the gas generator. The gas distributor has a discharge port for discharging gas from the gas generator into the upper and lower chambers so as to expand the airbag, wherein the gas distributor has a size greater than that of the gas generator to form a clearance for a gas passage outside the gas generator so that the gas flows between at least the upper chamber and the lower chamber through the clearance. A connecting line (line separating chambers 11, 12, and 14) has a first section (horizontal portion of line between upper chamber 12 and lower chamber 11) and a second section (vertical portion of line between chamber 14 and upper 12 and lower 11 chambers) extending continuously from the first section to define at least the upper chamber, the lower chamber, and the gas distributor, wherein the connecting line connects the occupant side surface and the opposite side surface of the airbag.

Additionally, according to Figure 3 of Makoto, an airbag is disclosed having an occupant side surface (left end of airbag in Fig. 1) facing the occupant and an opposite side surface (right end of airbag in Fig. 1) opposite to the occupant side surface when the airbag is inflated, where the airbag has an interior partitioned into an upper chamber 12 and a lower chamber 11. A gas generator 20 is disposed in the airbag for generating gas to inflate the airbag, and a gas distributor is disposed in the airbag and partly surrounds the gas generator. The gas distributor has a discharge port for discharging gas from the gas generator into the upper and lower chambers so as to expand the airbag, wherein the gas distributor has a size greater than that of the gas generator to form a clearance for a gas passage outside the gas generator so that the gas flows between at least the upper chamber and the lower chamber through the clearance. A connecting line (line separating chambers 11, 12, and 14) has a first section (horizontal portion of line between upper chamber 12 and lower chamber 11) and a second section (diagonal portion of line between chamber 13 and upper chamber 12) extending continuously from the first section to define at least the upper chamber, the lower chamber, and the gas distributor, wherein the connecting line connects the occupant side surface and the opposite side surface of the airbag.

With respect to claim 9 and Figure 3 of Makoto, the first section separates the upper and lower chambers, and the second section (diagonal portion of line between chamber 13 and upper chamber 12) separates the gas distributor from the upper chamber.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2 and 5 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Makoto in view of Acker et al. (U.S. Pat. No. 6,349,964 B1).

Makoto discloses the claimed airbag as discussed above with reference to Figure 1, and also discloses that the airbag includes a housing chamber (portion of airbag where gas generator

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20 along with ends 21 and 22 are located) as the gas distributor (part of the housing that contains the connecting line and the discharge ports) between the second section of the connecting line and a rear side rim of the airbag for retaining the gas generator, where the discharge port includes a lower discharge port that communicates with the lower chamber at the lower side of the housing chamber and an upper discharge port that communicates with the upper chamber at the upper side of the housing chamber. In addition, Makoto discloses that the connecting line has a lower part situated close to the rear side rim of the airbag. Makoto, however, does not disclose that the lower discharge port is larger than that of the upper discharge port.

Acker et al. does disclose that the lower discharge ports 44 are larger than the upper discharge ports 42 (column 4, lines 64-67 & column 5, lines 1-2). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Makoto with the teachings of Acker et al. to have larger lower discharge ports so the lower chamber has a higher pressure applied to the pelvic region of the occupant than the upper chamber, which has a lower pressure because it is applied to the more-sensitive thoracic region of the occupant.

Claims 3, 4, 6, and 7 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Makoto in view of Acker et al., and further in view of Yokoyama (U.S. Pat. No. 6,231,069 B1).

Makoto, as modified by Acker et al., discloses the claimed airbag as discussed above as well as having a rod-shaped gas generator disposed vertically in the housing chamber, but does not disclose that the gas generator has a gas port facing downwardly at one end.

Yokoyama does disclose a wall 17 that directs the gas from the gas generator downwardly. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify the invention of Makoto as modified by Acker et al. with the teachings of Yokoyama to utilize a wall at the lower end of the housing chamber attached to the gas generator in order to direct the gas downwardly into the lower chamber to fill the center of the lower chamber first. This will create a more even distribution of gas throughout the lower chamber, which improves the overall deployment of the airbag and the safety of the occupant.

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Makoto, as modified by Acker et al., also discloses that the housing chamber is disposed between the upper chamber and the rear side rim of the airbag. The airbag is also partitioned by the connecting line first section connecting the occupant side surface and the opposite side surface, where the connecting line first section extends to the connecting line second section. The connecting line first section also extends from a front side rim of the airbag to an end portion near the rear side rim, and the connecting line second section extends from the end portion of the connecting line first section upwardly to end near an upper side rim of the airbag.

Claim 8 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Makoto in view of Acker et al., and further in view of Yokoyama and Sunabashiri (U.S. Pat. No. 6,561,539 B1).

The combination of Makoto, Acker et al., and Yokoyama discloses the claimed invention as discussed above but does not disclose that a partitioning line is disposed above the connecting line first section so as to form a middle chamber between the upper chamber and the lower chamber.

Sunabashiri does disclose a partitioning line 8 that forms a middle chamber between the upper chamber and the lower chamber. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify the combination of Makoto in view of the teachings of Sunabashiri to have a partitioning line disposed above the connecting line first portion in order further control the inflation of the airbag to provide optimal protection for the occupant.

(10) Response to Argument

Applicant's arguments filed 11/28/05 have been fully considered but they are not persuasive.

In response to Apellants' argument on pages 9 and 10 with respect to claims 1 and 9 that the airbag device of Makoto is structurally different from Apellants' claimed airbag system because there are at least one or two more lines that form the "rear duct 13," the Examiner maintains that the rejection is proper. There is nothing that would preclude Apellants' airbag

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system from having other lines that form additional chambers, and there are no limitations in the claims that preclude additional lines. In fact, the Examiner refers to the embodiments shown in Figures 4(a) and 4(b) of the Apellants' claimed airbag system to show additional lines that form a middle chamber.

In response to Apellants' argument on pages 10 and 11 with respect to claim 1 that the gas distributor does not have a size greater than that of the gas generator to form a clearance for a gas passage outside the gas generator so that the gas flows between at least the upper chamber and the lower chamber through the clearance, the Examiner maintains that the rejection is proper. The gas distributor, which consists of the part of the housing that contains the connecting line and the discharge ports, has a size greater than the gas generator and forms a clearance (above and below the connecting line) for a gas passage that is outside the gas generator so that gas flows between at least the upper chamber and the lower chamber through the clearance. In response to Apellants' argument on page 12 with respect to claim 2 that the rejection is in error because there is no motivation in either Makoto or Acker to combine the references, the Examiner maintains that the rejection is proper because Acker does supply motivation to combine the references (column 1, lines 42-59).

In response to Apellants' argument on page 13 with respect to claim 2 that the Examiner's modification is the result of impermissible hindsight, it must be recognized that any judgement on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper.

In response to Apellants' argument on page 18 with respect to claim 8 that the partitioning line is structurally different from Sunabashiri's partitioning wall cloth, the Examiner maintains that the rejection is proper because the specific structural properties of the partitioning line are not claimed.

In response to Apellants' arguments with respect to claims 2-8 that the prior art does not rectify the above-described deficiencies of Makoto, the Examiner maintains that the rejection is proper as discussed above.

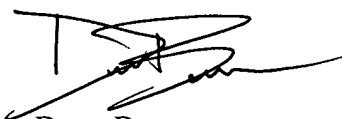
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(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,


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 5/25/06
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